



# Center for Nursing Advancement

Appalachian Highlands Center for Nursing Advancement and Tennessee Center for Nursing Advancement

## ANNUAL REPORT

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July 2023

The Center for Nursing Advancement  
is funded by  
Ballad Health and the State of Tennessee  
and is housed at  
East Tennessee State University (ETSU)

## KEY POINTS

- **\$20M in funding** will enable the Center for Nursing Advancement to create scientific models to measure—and ultimately improve—wellbeing in nursing.
- The Center is poised to become an example for the nation, which can then be replicated throughout the world, of how to **attract and retain nurses** throughout the nursing pipeline.
- Extensive strategic partnerships ensure that **diversity of thought and perspectives** will go into everything the Center learns and disseminates.
- Marketing partnerships ensure greater visibility for the work of the Center, which will help **attract new nurses** and **retain nurses** who are considering leaving the profession or the region.
- Partner organizations can use data-driven innovations to generate contextualized models of measurement and prediction to help **further refine retention efforts in each location**.
- Thirty-one healthcare facilities across the Center’s area of oversight will lead research in **wellbeing at work**, presenting results at the system, hospital, and unit levels.

### *The Center for Nursing Advancement is funded by the state of Tennessee and Ballad Health.*

An agreement between Tennessee and Virginia enabled two smaller health-care systems to merge into one 22-hospital system—which became Ballad Health—spanning the Appalachian Highlands in Eastern Tennessee and Western Virginia. Ballad Health set up a \$10M fund to finance the Center’s work in the Appalachian Highlands. The State of Tennessee then created a second \$10M fund to ensure that the entire state, not just eastern TN, would be served by the Center. Two legal documents, one created by Tennessee and one by Virginia, govern the management of each fund.

Funds from both entities will be used to rebuild the nursing workforce after the pandemic and give affiliated facilities access to data science enabling them to track wellbeing along the entire pipeline of nurses, with significant improvements in *wellbeing at work* as the goal.

Data and innovation will drive efforts to rebuild the nursing workforce. To maximize use of the funds and to engage nurses across the region, the Center for Nursing Advancement will increase its media visibility and collaborate with facilities throughout the region.

**Mission:** To create an improved experience of wellbeing for nurses, that can be quantified empirically, which can then be used to improve recruitment, retention, and innovation along the nursing pipeline.

**Vision:** To become the world’s capital for knowledge, data, and program development related to the recruitment and retention of nurses along the nursing pipeline—from nursing students to staff nurses to nursing faculty.

## Overview

The Center for Nursing Advancement began its work in July of 2022 under the direction of interim Executive Director, Dr. Kathryn Wilhoit, who conducted listening sessions with nurses across Tennessee, including a portion of the Appalachian Highlands, to learn what nurses wanted from the Center for Nursing Advancement. This region has long been considered an “exporter” of nurses; we needed to find out what it would take to keep nurses in the state, and in the Appalachian Highlands. After those events, it was clear that nurses wanted the Center to keep them well informed about efforts to rebuild the nursing workforce after the pandemic. A second idea that emerged from the listening sessions was to set up committees for each of the four foci of the Center: wellbeing, data, innovation, and the pipeline of nurses.

Dr. John Nelson became the permanent Executive Director of the Center for Nursing Advancement on January 31, 2023. What Dr. Wilhoit built was used to develop a business plan that included developing partnerships across the Appalachian Highlands and Tennessee. The aim of these new partnerships is to develop a research and data strategy to study and improve the work environment, making the Appalachian Highlands and Tennessee world leaders in the recruitment and retention of nurses all along the nursing pipeline.

## Partnerships of the Center for Nursing Advancement

### Wellbeing at Work

Thirty-one healthcare facilities across the Center's area of oversight will lead the trajectory of research in wellbeing at work, presenting results at the system, hospital, and unit level. This addresses a primary concern voiced in the listening sessions conducted in 2022; nurses want to understand what is being done to build back the nursing workforce after the pandemic. Measurement models of retention will be developed which will help everyone involved understand how wellbeing, innovative programming, and other factors identified by staff predict retention of nurses. Participating facilities include:

- Ballad Health's 22 facilities across the Appalachian Highlands
- Vanderbilt Health's seven facilities in Middle Tennessee
- A cooperative of facilities within the Appalachian Highlands serving patients dealing with addiction
- Maury Regional Medical Center in Middle Tennessee

NOTE: We are actively seeking partner sites in Western Tennessee.

### Data-Driven Innovation

The data collected in the Center's studies will be used to build an Appalachian Highland and Tennessee program to further study retention by context. What satisfies nurses in rural and urban areas varies, and thus models examining what wellbeing means in discrete contexts will be created. The findings of these studies will be used to develop a strategy to gather additional data that can be used in all locations to generate contextualized models of measurement and prediction to help further refine retention efforts in each location. Organizations who either provide data or have agreed to collaborate include:

- National Forum of State Nursing Workforce Centers. <https://nursingworkforcecenters.org>
- Tennessee Board of Nursing
- Tennessee Nursing Association
- Tennessee Hospital Association
- Centers at East Tennessee State University (ETSU) (which includes Center for Public Health, Center for Interprofessional Collaboration, and Center for Addiction Medicine)
- Belmont University School of Nursing
- Lipscomb University School of Nursing
- National Healthcare Council
- United Way in Abingdon, Virginia

NOTE: The Abington United Way has an impressive specified model to study educational health as it relates to recruitment and retention of workers, including nurses. They have found dramatic variance in what is needed to recruit and retain workers, based on *educational health*, which incorporates the physical, psychological, and social learning environment domains.

## Marketing to Attract and Retain Nurses

- Nexstar WJHL News Channel 11 will provide a platform for the Center for Nursing Advancement to be recognized across the Appalachian Highlands and Tennessee so more hospitals and academic centers become aware of the efforts to rebuild the nursing workforce with wellbeing as the foundation. They will also make healthcare organizations in the region aware of how the Center can help with secondary analytics and curriculum development at their sites.
- Conferences: The Executive Director, and other staff, as the Center grows, will present at conferences in the state, region, nation, and internationally to fulfill the vision of becoming an example for the world of how to use the science of wellbeing at work as the foundation for rebuilding the nursing workforce.
- Dr. Nelson will attend an international meeting of 95 nurse researchers from 18 countries who are using the same research methods used by the Center for Nursing Advancement to study wellbeing at work. This will be held in Rijeka, Croatia in September 2023.
- The Center for Nursing Advancement will hold a statewide summit in August 2023.
- A podcast series, with the working title “Rebuilding the Nursing Workforce” is in production and two podcasts per month are planned.
- The Center is creating a website for graduate students affiliated with the center to access the Center’s data for use in secondary analytics for further study of healthcare environments across the region and to develop models of retention for each environment.
- Representatives from the Center for Nursing Advancement will provide leadership within the National Forum for State Workforce Centers, including serving on the research committee and leading a conversation on data architecture and automation.
- Representatives from the Center for Nursing Advancement will be joining Associations including the National Healthcare Council.
- Articles about the work of the Center will appear local and school newspapers:
  - [ETSU School Paper](#)
  - [Bristol, Tennessee Herald Courier](#)
  - [Johnson City Press](#)

## Staffing

As the Center for Nursing Advancement embarks on its most significant period of growth to date, John Nelson, PhD, MS, RN, Executive Director, and Dana Hoehenberger, Executive Assistant, are currently the Center’s only staff members.

The Center is in the process of interviewing for two Nurse Scientist positions. Positions are being developed for several DNP-prepared Evidence and Quality Improvement Specialists to help with implementation of programs identified in the analysis as effective. There are also plans to hire vendors who specialize in data architecture, data engineering, and data science. Use of vendors will provide access to experts who are too expensive to put on payroll within the current policies of the university where the Center is housed.

## Advisory Boards

There is one advisory board for the Appalachian Highland fund and a second advisory board for the State of Tennessee's fund. The boards meet every six months and receive emails from the Executive Director when updates and council are required between meetings. The Appalachian Highland Center for Nursing Advancement (AHCNA) advisory board met on (5/10/23). The Tennessee Center for Nursing Advancement (TCNA) advisory board met on (3/14/23). Recordings of the meetings are edited by the Executive Director, Dr. John Nelson, and sent out to all members. Minutes are also taken by Dana Hoehenberger and sent along with the recording link to all members. As needed, the Executive Director will contact individual board members if they have a specific skill in an area of inquiry or serve on a committee of one of the four foci. Board members are listed in the following tables.

Advisory Board Members for the Appalachian Highland Center for Nursing Advancement	
<b>Dr. Lisa Smithgall</b>	Vice President, Chief Nursing Officer, Ballad Health
<b>Dr. Matthew Loos</b>	Chief Academic Officer, Ballad Health
<b>Morgan May, DNP</b>	Vice President, Chief Nursing Officer, Ballad Health, Southern Region
<b>Bobbie Murphy</b>	Regional Nursing VP, Ballad Health division includes SWV, Northern Region
<b>Eric Deaton, FACHE</b>	Chief Operation Officer, Ballad Health
<b>Sean McMurray</b>	Executive Director, Wellspring Foundation, South West Virginia
<b>Dr. Jon Smith</b>	East Tennessee State University, College of Nursing Economist
<b>Dr. Melinda Collins</b>	Associate Dean, School of Sciences and Allied Health, Milligan University
<b>Nekia Kiker, RN</b>	Front Line RN Ballad Health
<b>Lottie Ryans</b>	Director of Workforce and Literacy Initiatives
<b>Dr. Nancy Haugen</b>	Dean, College of Nursing, UVA Wise
Advisory Board Members for the Tennessee Center for Nursing Advancement	
<b>Dr. Lisa Smithgall</b>	Vice President, Chief Nursing Officer, Ballad Health
<b>Dr. Leslie Sands</b>	Director of College of Nursing at Jackson State Community College
<b>Dr. Cathy Taylor</b>	Dean of College of Nursing, Belmont University
<b>Kenyatta Wade</b>	Director of Nursing, Blakeford Long Term Care Facility
<b>Peggy Ray, RN</b>	Interim HealthCare
<b>Dr. Donna Fraysier</b>	Dean, School of Nursing, King University
<b>Paula Jackson</b>	Senior Vice President, Nexstar Communications (WJHL network)
<b>Julie Hamm, RN, BSN</b>	PACU Nurse at Vanderbilt and TNA President
<b>Dr. Chris Smith</b>	Professor and Director, University of Chattanooga
<b>Dr. Wendy Likes</b>	Dean, College of Nursing, University of Tennessee Health Science Center
<b>Sherry Richardson</b>	Executive Director, Tennessee Board of Nursing
<b>Dr. Jeff McCord</b>	President, Northeast State Community College



## Using the Science of Wellbeing at Work as the Foundation of Retention

There are several strategies to scientifically determine how best to recruit and retain nurses. In the literature, it is usually found that recruitment and retention are addressed in the same article, chapter, or book. The Center for Nursing Advancement's strategy is to study recruitment and retention as distinct constructs, beginning with retention since our most pressing aim is to build environments that *keep* nurses, so that when new nurses are recruited for hire, it is obvious to the new hires that wellbeing at work is a high priority, thus theoretically causing them to want to stay.

The wellbeing of staff nurses is not the same as the wellbeing of students, faculty, or even nurse managers, so research specific to each role will be used to build the science to study nurses all along the continuum. The process underway to study wellbeing for nurses at each stage in the nursing pipeline is described below:

### Nursing Students

Researchers at Belmont University have agreed to partner with the Center for Nursing Advancement to study nursing students and models of student retention. The Center has provided \$135,000 to launch this effort, referred to as BeWell. A memorandum of understanding was written collaboratively between Belmont and the Center for Nursing Advancement, reviewed by the Advisory Board of Tennessee, and approved by East Tennessee State University's legal department. An initial report will be written in December of 2023. Partnerships such as this one do more than merely allow us to access the passion and expertise of the researchers; they spread awareness of the effort across Tennessee to help market our findings more broadly and within varied networks.

### Staff Nurses and Managers

Staff nurses and managers are being studied in 31 facilities, as described in an earlier portion of this report. A 35-item assessment instrument that explains 80% of Wellbeing at Work, and has been found to be psychometrically valid, reliable, and unbiased across 11 countries, is currently being used in 18 countries to study wellbeing at work in an international study of nurses. The Center for Nursing Advancement is involved in this study and is leading the conversation on how to automate this assessment instrument within a larger data architecture to identify predictors of retention in real time. Leading researchers from around the world are participating and have published extensively together on this construct. The Center for Nursing Advancement's leadership role in this international study will position facilities working with the Center, and the Center itself, as global leaders in the effort to rebuild the nursing workforce after the pandemic. Largely through the efforts of the Center, specified models of retention are already helping to create precise reports of predictors of retention.

### Nursing Faculty

Researchers at Lipscomb University and ETSU will develop measures to study wellbeing at work for nursing faculty. They are in the process of content validation for an instrument, based on the instrument used to measure wellbeing of staff nurses, to assess wellbeing at work for nursing faculty.

## **Data, Automation, and Real-Time Improvements for Our Partners**

One of the most consequential aims of the work of the Center is to put data into the hands of its partners in real time. Two challenges currently preventing us from reaching this aim are as follows:

- 1) Our data sources are disparate and inconsistent, and we are sometimes unable to get any data at all from our partners in rural areas.
- 2) There is no automated process to generate the data we need in real time, which would enable us to understand trends and engage in more accurate, timely forecasting related to retention.
- 3) There is no credible measure of the number of RNs, LPNs or certified nursing assistants who work in Tennessee. There is data on how many reside in Tennessee, but fewer than 5% answered the optional question asking the location of their employer.

To address these challenges, we will create a better management system for data, which will necessarily include automation of data collection and dissemination, using the website currently under development. In addition, it is essential to our data collection that the Tennessee Board of Nursing require new licensees and nurses renewing their licenses to indicate 1) whether they are currently working as nurses, 2) if so, whether they are employed full time or part time, and 3) whether or not they are working as a nurse in the state of Tennessee.

We are working across the state of Tennessee and the Appalachian Highlands, with the partners identified in this report, to map out all the data we're collecting so we can improve the completeness, consistency, usability, and ease of access of that data for participating facilities. Once the data are mapped out, we can work with our IT vendors and partners to develop complete, consistent, automated reports that inform, in real time, on the satisfaction of the workforce, including all predictors of retention. Again, it is important to remember that improving retention is a higher priority than improving recruitment, as the satisfaction of the existing workforce is the strongest predictor of whether new hires stay or leave.

This data mapping is essential, because our goal is to do more than merely build the science necessary to measure wellbeing at work for all nurses, nursing students, and nursing faculty; it is also to improve real-time access to the science and forecasting of retention.

This improved access will be accomplished, in part, through relationship-building within the participating organizations. Nurse leaders and administrators must work productively with information technology and computer faculty in their organizations. Conversations with IT faculty at ETSU have taken place to establish the option for IT students (the top 20% of the class) to use the data we produce for associated projects. These enhanced collaborations will result in an impressive list of products and services that the Center can provide for the institutions and individuals it serves.

## **Moving Forward Together**

There are conversations taking place (and more to come) about how nursing departments and IT departments can and must collaborate to integrate the real-life stories of nurses into all of this science. One of the key differences between the work of the Center for Nursing Advancement and most other initiatives before it, is that all measurement of what creates nursing retention is directly informed by real stories from real nurses. Valid, reliable, unbiased models that measure and predict retention of nurses can exist only where the struggles, joys, crises, and triumphs of nurses are known, valued, and included.

## Appendix: 2023 Quarter 4 Ballard Health New Grad Hiring Data

Ballad Health provided us with the following information for inclusion in this annual report.

### Graduates Retained in the Region Q4

Ballad Health hired 73 of the ETSU's 132 BSN graduates from the JC and Kingsport Campus, which is in the NE Tennessee region. This represents 55% of the May 2023 NE Tennessee graduating class.

The chart below shows the numbers of BSNs hired by Ballad health, broken down by academic institution/regional nursing program. It is unsurprising that ETSU has provided, by far, the most BSN graduates, as ETSU provides education for nursing students from throughout the state of Tennessee through multiple programs, and ETSU has the largest nursing program in Tennessee.

Regional Nursing Program	May 2023 Graduation	May 2023 Ballad Health Nurse Graduate Hires	May 2023 % of Regional Program Hires
ETSU	132	73	55.0%
NESCC	29	21	84.0%
VA Tri College (VHCC-74, MECC-42, SWVCC-48)	164	78	47.5%
WSCC	48	6	12.5%
Milligan	14	5	35.7%
Tusculum	0	0	n/a
King	8	5	62.5%
UVA - Wise	16	6	37.5%
Emory and Henry	(no grads until May 2024)	0	n/a
WCC	(no data submitted)	1	n/a
<b>Total</b>	<b>411</b>	<b>195</b>	<b>47.4%</b>

Collection of data like that found in the table above is essential to measure the extent to which we are reaching our recruitment and retention goals. The ability to get such data from all of our site partners more efficiently will be highly beneficial.